STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF March 18, 2010
Prepared March 18, 2010

ITEM NUMBER: XX

SUBJECT: Amending The Water Quality Control Plan for The Central Coast Basin to (1) Remove The Shellfish Harvesting Beneficial Use for Salinas River Lagoon (North), Old Salinas River, and Tembladero Slough, (2) Adopt Total Maximum Daily Loads For Fecal Coliform in Lower Salinas River Watershed , (3) Add the Lower Salinas River Watershed to the Domestic Animal Waste Discharge Prohibition; and (4) Add the Lower Salinas River Watershed to the Human Fecal Material Discharge Prohibition

SUMMARY

The Lower Salinas River, Old Salinas River, Tembladero Slough, Salinas Reclamation Ditch, Alisal Creek, Gabilan Creek, Natividad Creek, Salinas River Lagoon (North), Santa Rita Creek, Quail Creek, Chualar Creek and Towne Creek are located in the Lower Salinas River Watershed and are impaired by fecal indicator bacteria. The Lower Salinas River, Old Salinas River, Tembladero Slough, Salinas Reclamation Ditch, Alisal Creek, and Gabilan Creek are listed on Clean Water Act 303(d) list as impaired due to pathogens and do not meet the Basin Plan water quality objectives for fecal coliform.

Quail Creek and Chualar Creek are on the Water Board-Approved Clean Water Act 303(d) proposed list (USEPA approval pending) of impaired waters for pathogens, and do not meet Basin Plan water quality objectives for fecal coliform.

The Salinas River Lagoon (North), Santa Rita Creek, Natividad Creek, and Towne Creek are not on the Clean Water Act 303(d) list of impaired waters for pathogens, and do not meet USEPA water quality criteria for *E. coli*.

In this agenda item, Water Board staff recommends the Central Coast Water Board adopt four proposed Basin Plan amendments that stem from the development of Total Maximum Daily Loads (TMDLs) for fecal coliform in Lower Salinas River Watershed. Staff recommends the following actions: (1) Remove The Shellfish Harvesting Beneficial Use for Salinas River Lagoon (North), Old Salinas River, and Tembladero Slough, (2) Adopt Total Maximum Daily Loads For Fecal Coliform in Lower Salinas River Watershed, (3) Add the Lower Salinas River Watershed to the Domestic Animal Waste Discharge Prohibition; and (4) Add the Lower Salinas River Watershed to the Human Fecal Material Discharge Prohibition

Water Board staff reviewed beneficial uses for the watershed and determined that the shellfish harvesting beneficial use is not an appropriate beneficial use for Salinas River Lagoon (North), Old Salinas River, and Tembladero Slough; staff is recommending removal of this beneficial use.

Water Board staff determined that a human fecal material discharge prohibition and a domestic animal waste discharge prohibition for the Lower Salinas River Watershed should be developed to include specific non-point sources of fecal indicator bacteria.

Water Board staff developed the TMDLs, load and wasteload allocations and implementation plans to reduce fecal coliform loading to waterbodies in the Lower Salinas River Watershed.

The technical report that supports the Basin Plan Amendment is the Project Report for the TMDLs. The Project Report (listed as Attachment 2 to this Staff Report) is available at the Central Coast Water Board website at

http://www.waterboards.ca.gov/centralcoast/board_info/agendas/2010/2010_agendas.shtml

Click on "view agenda" for March 18, 2010; then click on Item X, TMDLs for Fecal Coliform in the Lower Salinas River Watershed.

SUMMARY OF THE TMDL ELEMENTS AND THE IMPLEMENTATION PLAN

PROJECT DEVELOPMENT FOR TMDLs AND REMOVAL OF SHELLFISH HARVESTING BENFICIAL USE

The data and information Water Board staff used to develop the TMDLs were obtained from the Central Coast Ambient Monitoring Program, the U.S. Department of Agriculture, and Water Board TMDL program monitoring activities to assess pathogen conditions in surface waters of the Lower Salinas River Watershed. Water Board staff also used discharger data and reports, land use data, field reconnaissance work, and conversations with staff from other agencies to complete the source analysis.

The first proposed amendment is to remove the designation of the shellfish harvesting beneficial use for the Salinas River Lagoon (North), Old Salinas River, and Tembladero Slough. This de-designation is based on the fact that staff found no evidence of the shellfish harvesting use in these waterbodies. The Salinas River Lagoon (North), Old Salinas River, and Tembladero Slough are designated with the beneficial use of shellfish harvesting in the 1994 Basin Plan. The 1975 and 1989 Basin Plans did not list any of these three waterbodies as either Inland Surface Waters or Coastal Waters. Table 2-2 of the 1989 Basin Plan states that, "Unlisted waterbodies have implied beneficial uses designations for protection of both recreation and aquatic life." Therefore, these three waterbodies were not designated for SHELL prior to the 1994 Basin Plan. In addition, Table 2-2 of the 1989 Basin Plan lists Moss Landing Harbor as Coastal Water with SHELL beneficial use (note that Old Salinas River and Tembladero Slough drain to the southernmost extent of Moss Landing Harbor via tidal gates). The Moss Landing Harbor SHELL beneficial use contained in Table 2-2 of the 1989 Basin Plan has the following footnote:

> "Clamming is an existing beneficial use in the North Harbor and on the south side of the entrance channel to Elkhorn Slough (north of the Pacific Gas and Electric Cooling Water Intake). Presently, no shellfishing use occurs south of the Pacific Gas and Electric Intake."

Staff concluded that shellfish harvesting did not exist prior to 1994 because the SHELL beneficial use for these waterbodies was not included in either the 1975 or 1989 Basin Plan and that the southern portion of Moss Landing Harbor, which receives flow from the Old Salinas River and Tembladero Slough, did not support SHELL beneficial use.

The 1994 Basin Plan designates the SHELL beneficial use for Salinas River Lagoon (North), Old Salinas River, and Tembladero Slough however there is no documentation or rationale to support this designation. The Administrative Record contained no explanation for this change and the reasons for this are unknown. Therefore, the designation of this beneficial use for these waterbodies does not appear to be scientifically based.

Staff conducted a Use Attainability Analysis in order to determine if the shellfish harvesting beneficial use is appropriate for Salinas River Lagoon (North), Old Salinas River, and Tembladero Slough. (See Appendix J of the Project Report) at this link:

http://www.waterboards.ca.gov/centralcoast/board_info/agendas/2010/2010_agendas.shtml

Then click on "view agenda" for March 18, 2010; then click on Item XX; then click on Appendix J of Project Report.

Staff analyzed existing water quality data, conducted reconnaissance work in the area, contacted persons with knowledge of the area, and performed a literature review on the lifecycle and habitat requirements of shellfish. Staff concluded that conditions in Salinas River Lagoon (North), Old Salinas River, and Tembladero Slough do not support shellfish harvesting because:

1) Water quality data indicated that the shellfish harvesting water quality objective has not been achieved since 1975,
2) There were no shellfish located in Salinas River Lagoon (North), Old Salinas River, and Tembladero Slough upon visiting the site, and
3) Local agencies, academia, and consultants had no evidence of shellfish occurring in these waterbodies.

Based on the Use Attainability Analysis, three factors preclude attainment of shellfish harvesting in Salinas River Lagoon (North), Old Salinas River, and Tembladero Slough (Clean Water Act 131.10(g)). These conditions include:

1) seasonal closures (sand bar formation) at the mouth of Salinas River Lagoon (North), tidal gate closures at the northernmost extent of Old Salinas River (where it meets the southern portion of Moss Landing Harbor) and the subsequent effects of these conditions,
2) Extensive hydraulic modifications to the Salinas River Lagoon (North), Old Salinas River, and Tembladero Slough, and
3) An absence of evidence of any current or historic presence of harvestable shellfish (appropriate physical conditions to support shellfish habitat seem to be lacking).

Consistent with staff's proposed removal of the shellfish harvesting beneficial use designation, staff developed the Project Report for these fecal coliform TMDLs to address the impairment of the water–contact recreational beneficial use, not the shellfish harvesting beneficial use. Therefore, staff does not propose that the TMDLs be set to reduce total coliform levels to shellfish harvesting water quality objectives, but rather to fecal coliform levels protective of the water-contact recreational beneficial use.

PROBLEM STATEMENT AND NUMERIC TARGET

The beneficial use of water contact recreation is not protected in the impaired reaches of the Lower Salinas River Watershed, including Lower Salinas River (from the Chualar River Road, downstream to the Salinas River Lagoon (North)), Old Salinas River, Tembladero Slough, Salinas Reclamation Canal, Alisal Creek, Gabilan Creek, Natividad Creek, Salinas River Lagoon (North), Santa Rita Creek, Quail Creek, Chualar Creek, and Towne Creek because fecal indicator bacteria concentrations exceed existing Basin Plan numeric water quality objectives and/or USEPA guidelines protecting this beneficial use. All reaches in these waterbodies are impaired.

The numeric targets for the TMDLs are equal to the water quality objectives protecting water contact recreation, which are:

"Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN per 100 mL, nor shall more than 10 percent of samples collected during any 30-day period exceed 400 MPN per 100 mL."

SOURCE ANALYSIS

The relative order of controllable sources, in descending order, contributing pathogens to the Lower Salinas River, Old Salinas River, Tembladero Slough, Salinas Reclamation Canal, Alisal Creek, Gabilan Creek, Natividad Creek, Salinas River Lagoon (North), Santa Rita Creek, Quail Creek, Chualar Creek, and Towne Creek are:

Salinas Reclamation Canal, Lower: 1) Storm drain discharges to municipally owned and operated storm sewer systems (MS4s) required to be covered by an NPDES permit, 2) domestic animals/livestock discharges in areas that do not drain to MS4s, 3) illegal dumping, 4) homeless person/encampment discharges in areas that do not drain to MS4s, 5) sanitary sewer collection system leaks.

Reclamation Canal, Upper/Alisal Creek: 1) Domestic animals/livestock discharges in areas that do not drain to MS4s, 2) illegal dumping, 3) homeless person/encampment discharges in areas that do not drain to MS4s, 4) storm drain discharges to municipally owned and operated storm sewer systems (MS4s) required to be covered by an NPDES permit.

Old Salinas River: 1) Domestic animals/livestock discharges in areas that do not drain to MS4s, 2) illegal dumping, 3) storm drain discharges to municipally owned and operated storm sewer systems (MS4s) required to be covered by an NPDES permit.

Tembladero Slough: 1) Domestic animals/livestock discharges in areas that do not drain to MS4s, 2) storm drain discharges to municipally owned and operated storm sewer systems (MS4s) required to be covered by an NPDES permit, 3) illegal dumping, 4) sanitary sewer collection system leaks.

Santa Rita Creek: 1) Domestic animals/livestock discharges in areas that do not drain to MS4s, 2) storm drain discharges to municipally owned and operated storm sewer systems (MS4s) required to be covered by an NPDES permit, 3) illegal dumping, 4) homeless person/encampment discharges in areas that do not drain to MS4s, 5) sanitary sewer collection system leaks.

Salinas River Lagoon (North): 1) Domestic animals/livestock discharges in areas that do not drain to MS4s, 2) illegal dumping 3) storm drain discharges to municipally owned and operated storm sewer systems (MS4s) required to be covered by an NPDES permit.

Lower Salinas River: 1) Domestic animals/livestock discharges in areas that do not drain to MS4s, 2) storm drain discharges to municipally owned and operated storm sewer systems (MS4s) required to be covered by an NPDES permit, 3) illegal dumping.

Gabilan Creek: 1) Domestic animals/livestock discharges in areas that do not drain to MS4s, 2) storm drain discharges to municipally owned and operated storm sewer systems (MS4s) required to be covered by an NPDES permit, 3) illegal dumping, 4) homeless person/encampment discharges in areas that do not drain to MS4s, 5) sanitary sewer collection system leaks.

Natividad Creek: 1) Domestic animals/livestock discharges in areas that do not drain to MS4s, 2) Storm drain discharges to municipally owned and operated storm sewer systems (MS4s) required to be covered by an NPDES permit, 3) illegal dumping, 4) homeless person/encampment discharges in areas that do not drain to MS4s, 5) sanitary sewer collection system leaks.

Quail Creek: 1) Domestic animals/livestock discharges in areas that do not drain to MS4s, 2) illegal dumping.

Chualar Creek: 1) Domestic animals/livestock discharges in areas that do not drain to MS4s, 2) illegal dumping.

Towne Creek: 1) Domestic animals/livestock discharges in areas that do not drain to MS4s, 2) illegal dumping.

Natural uncontrollable sources of fecal coliform in the listed waterbodies are present and likely contributing to impairment at varying degrees by season and location.

TMDLs AND ALLOCATIONS

The TMDLs for pathogens in the Lower Salinas River (from the Salinas River at Chualar River Road, downstream to the Salinas River Lagoon), Old Salinas River, Tembladero Slough (the entire Slough), Salinas Reclamation Canal, Alisal Creek, Gabilan Creek, Natividad Creek, Salinas River Lagoon (North), Santa Rita Creek, Quail Creek, Chualar Creek, and Towne Creek are equal to the Basin Plan water quality objective for fecal coliform. Water Board staff recommended assigning each human source of fecal indicator bacteria an allocation equal to the water quality objective for water contact recreation (log-mean 200 MPN/100mL). Water Board staff recommends the allocation to sources of fecal indicator bacteria from human fecal material be zero. Water Board staff recommends this because there is a higher probability that fecal material from humans has a higher proportion of pathogens, relative to fecal material from other organisms. Additionally, the regulatory mechanisms used to regulate sources of human fecal material do not allow any loading to surface waters, which, in effect, equates to a zero allocation to these sources. The allocations to all other sources of fecal indicator bacteria are equal to the Basin Plan water quality objective for fecal coliform.

The responsible parties for controllable sources are City of Salinas, County of Monterey (Monterey Regional Group), , Castroville Community Services District, owners and operators of land used for/containing illegal dumping, owners and operators of land used for or containing domestic animals, and owners and operators of land that includes homeless persons and encampments. Natural sources are assigned an allocation equal to the Basin Plan water quality objective for fecal coliform. The parties responsible for the allocations to controllable sources are not responsible for the allocation to natural sources. The Implementation Table (Table IX – J – 1) in the Resolution (Attachment 1) shows these allocations to the responsible parties.

IMPLEMENTATION PLAN

The proposed Implementation Plan in the Resolution, contained within Attachment 1, describes the responsibilities of each responsible party and the steps the Central Coast Water Board or the Executive Officer will take to require actions by the responsible parties.

Water Board staff developed an implementation strategy (Plan) to implement these TMDLs that reflects our current understanding of fecal coliform loading in the Lower Salinas River Watershed. The Plan establishes that the Executive Officer will require responsible parties to implement

identified actions that will reduce fecal coliform loading, monitor fecal coliform source reductions, and report progress and results of monitoring to the Central Coast Water Board.

Implementation is required pursuant to existing regulatory authority through currently held waste discharge requirements and NPDES permits, the NPDES General Permit for stormwater discharges from municipalities, the proposed Human Fecal Material Discharge prohibition, and the proposed Domestic Animal Waste Discharge prohibition.

The Implementation Plan explains that if natural sources are found to cause the impairment, and/or if responsible parties demonstrate that controllable sources of fecal coliform are not contributing to the exceedance of water quality objectives in receiving waters, staff will re-evaluate the TMDL, targets and allocations and propose revisions to the Central Coast Water Board. For example, staff may propose a site-specific objective for Lower Salinas River Watershed waters. A site-specific objective would be proposed as a Basin Plan Amendment through the appropriate adoption and public review procedures required by the Central Coast Water Board, State Water Resources Control Board, and United States Environmental Protection Agency.

MONITORING PLAN

The Implementation Plan establishes that the Executive Officer will require responsible parties to monitor fecal coliform source reductions, and report progress and results of monitoring to the Central Coast Water Board. Water Board staff developed a recommended set of locations and will work with responsible parties to establish on-going monitoring at these locations. Responsible parties will conduct the monitoring and submit results to the Central Coast Water Board. Water Board staff will evaluate the monitoring data on an on-going basis, as well as during three year assessments to determine progress towards achieving the allocations and TMDLs.

Water Board staff proposes storm drain sampling to evaluate reductions in fecal coliform loading from storm drains and effectiveness of the stormwater management plan. The City of Salinas and Monterey Regional Group will work with Central Coast Water Board staff to identify which stormwater outfalls to monitor based on representative flows and the volume of discharge (loading potential), among other factors. The Central Coast Water Board Executive Officer will review and approve the final monitoring plan, request modifications if necessary, or may require specific monitoring.

TIME-SCHEDULE FOR TRACKING PROGRESS AND ACHIEVING THE TMDLS

Water Board staff will evaluate implementation and numeric target monitoring data every three years to determine if changes to implementation actions or monitoring are warranted.

The target date to achieve the TMDLs is 13 years after the effective date of the TMDLs which is the date of approval by the California Office of Administrative Law. This projection is based on anticipated implementation schedules of the responsible parties, which are in turn based on economic and logistic considerations.

ENVIRONMENTAL SUMMARY

The California Resources Agency has certified the basin planning process in accordance with section 21080.5 of the Public Resources Code. The process is therefore exempt from Chapter 3 of the California Environmental Quality Act (CEQA). The analysis contained in the Final Project Report (Attachment 2), the CEQA Substitute Environmental Document (Attachment 3, this staff report), and

the responses to comments complies with the requirements of the State Water Board's certified regulatory CEQA process, as set forth in California Code of Regulations, Title 23, section 3775 et seq. Furthermore, the analysis fulfills the Central Coast Water Board's obligations attendant with the adoption of regulations "requiring the installation of pollution control equipment, or a performance standard or treatment requirement," as set forth in section 21159 of the Public Resources Code. All public comments were considered.

ANTI-DEGRADATION

These basin plan amendments are consistent with the provisions of the State Water Resources Control Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California" and 40 CFR 131.12. The Basin Plan Amendments will result in improved water quality throughout the Watershed and maintenance of the level of water quality necessary to protect existing and anticipated beneficial uses.

SCIENTIFIC PEER REVIEW

The Peer reviewer provided comments to Water Board staff in May 2009. Water Board Staff prepared responses and revised the Project Report in response to these comments in June 2009, prior to distributing for Public Comments. Peer Review comments and Central Coast Water Board staff responses are included in Attachment 5. As a result of these comments, Water Board Staff made several changes to the Project Report, as follows: 1) Water Board staff provided mass-based daily load expressions in accordance with 2007 USEPA draft guidance; 2) identified sediment-associated bacteria as a distinct source load, and assessed it's potential load contribution; 3) assessed the potential load contribution of wildlife; and 4) made additional assessments of the spatial and flow-based variation in bacteria loads. These changes are discussed in staff responses described in Attachment 5.

PUBLIC INVOLVEMENT

Staff conducted stakeholder outreach efforts throughout the Project inception. Staff worked with county, state, and federal agencies during the data collection and data analysis phases. Results of coordinated efforts were publicized in newspapers and television media.

Staff made several presentations and engaged with stakeholders during the development of the TMDL. Attendees of the presentations included representatives from the following:

- United Fresh Fruit and Vegetable Association
- Monterey County Department of Environmental Health
- State of California Department of Health Services
- United States Department of Agriculture
- United States Food and Drug Administration

Staff conducted a California Environmental Quality Act (CEQA) stakeholder scoping meeting on June 20, 2007. Staff addressed questions and comments from attendees.

Staff held another stakeholder meeting on August 18 2009, prior to the formal public comment period preceding the Central Coast Water Board public hearing to consider adoption of the TMDL. Staff responded orally to public comments and questions at the stakeholder meeting.

This Staff Report, Resolution, and other attachments were made available for formal public comment associated with the Central Coast Water Board Hearing on December 7, 2009. Revised documents, including the Staff Report, Resolution, and other attachments to the Staff Report were made available for public comment for this Central Coast Water Board Hearing on Month 18, 2010.

Comments were received for the March 18, 2010 hearing by:

1. XXXXXXXXXXXXXXXXXXXXX
2. XXXXXXXXXXXXXXXXXXXXX

Staff made minor changes to Basin Plan Amendment Documents as a result of these comments. Public comments and staff responses are included in Attachment 6 to this Staff Report.

RECOMMENDATION

Adopt Resolution No. R3-2010-00XX contained in Attachment 1, as proposed removing the shellfish harvesting beneficial use from Salinas River Lagoon (North), Old Salinas River, and Tembladero Slough, to amend the Basin Plan to Adopt Total Maximum Daily Loads for Fecal Coliform in Lower Salinas River, Old Salinas River, Tembladero Slough, Salinas Reclamation Canal, Alisal Creek, Gabilan Creek, Natividad Creek, Salinas River Lagoon (North), Santa Rita Creek, Quail Creek, Chualar Creek, and Towne Creek, add the Domestic Animal Waste Discharge Prohibition for the Lower Salinas River Watershed and add the Human Fecal Material Discharge Prohibition for the Lower Salinas River Watershed.

ATTACHMENTS:

The attachments are available at:

http://www.waterboards.ca.gov/centralcoast/board_info/agendas/2010/2010_agendas.shtml

Click on “view agenda” for March 18, 2010; then click on Item XX, TMDLs for Fecal Coliform in Lower Salinas River Watershed

1. Resolution No. R3-2010-00XX,
2. Final Project Report: “Total Maximum Daily Loads for Fecal Coliform in Lower Salinas River, Old Salinas River, Tembladero Slough, Salinas Reclamation Canal, Alisal Creek, Gabilan Creek, Natividad Creek, Salinas River Lagoon (North), Santa Rita Creek, Quail Creek, Chualar Creek, and Towne Creek, For the Month 18, 2010 Water Board Meeting.
3. CEQA Substitute Document
4. Notice of Public Hearing / Notice of Filing
5. Scientific Peer Review Comment
6. Public Comment and Staff Response

S:\TMDLs & Watershed Assessment\TMDL and Related Projects- Region 3\Salinas River\Fecal coliform\Web Posting Folder\Sal FC Staff Rpt Final